$l_{0}$ 

specifying the channel used in the information signal after the switching is performed; and

the terminal communication device switches to the frequency channel specified by the channel specifying information to receive the idle signal at a time specified by the switch time information.

#### REMARKS

Claims 1-37 remain in the application and have been amended hereby.

As will be noted from the Declaration, Applicants are citizens and residents of Japan and this application originated there.

Accordingly, the amendments to the specification are made to place the application in idiomatic English, and the claims are amended to place them in better condition for examination.

An early and favorable examination on the merits is earnestly solicited.

Respectfully submitted, COOPER & DUNHAM, LLP

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## VERSION WITH MARKINGS TO SHOW CHANGES MADE

### IN THE ABSTRACT OF THE DISCLOSURE

The Abstract of the Disclosure has been amended as follows:

-- A radio communication device[, a radio communication] and system [comprising] having a [bases] base station and a plurality of terminal [communication] devices, and a radio communication method [that can] to reduce the [risk] risks of interfering with [the operation of some] an other system using [a] the same frequency band and [also the risk] of a degrading [its] of performance due [the] to interference [of some] from the other system using [a] the same frequency band. The [radio communication] system [includes a base station and terminals adapted to] performs radio [communications] communication using the ISMA method. The base station 10 [comprises] has a packet detection circuit 14 for detecting a transmitted packet [transmitted from a terminal], an interference wave detection circuit 15 for detecting a meteorological radar wave, and [an IS] a generating circuit 17 for generating an idle signal that informs the terminals of [the] an idle state of [the] an communication channel. Upon receiving the [idles] idle signal, any of the terminals transmits a packet to be transmitted [to the outside]. If the base station detects [any] an interference wave found on the [communication] channel, it suspends [the] transmission of the idle signal [until] .--

### IN THE CLAIMS

Claims 1-37 have been amended as follows:

--1. (Amended) A radio communication device [adapted to] for radio [communications] communication using a predetermined frequency band, [said] the device comprising:

[an] information signal detection means for detecting an information signal transmitted from [some] <u>an</u> other radio communication device;

[an] idle signal transmission means for transmitting an idle signal[, notifying] that notifies the other radio communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of non-detection of [an] the information signal transmitted from [some] the other radio communication device [as detected] by [said] the information signal detection means;

[an] interference wave signal detection means for detecting [any] an interference wave signal [being] transmitted [by way of said] within the predetermined frequency band[; and

said], wherein the idle signal transmission means [being adapted to avoid transmission of said] does not transmit the idle signal [upon detection of an] when the interference wave signal is detected.

--2. (Amended) A radio communication device [adapted to] for radio [communications] communication using a predetermined frequency band, [said] the device comprising:

[an] information signal detection means for detecting an information signal transmitted from [some] an other radio communication device;

[an] idle signal transmission means for transmitting an idle signal[, notifying] that notifies the other radio communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of non-detection of [an] the information signal transmitted from [some] the other radio communication device [as detected] by [said] the information signal detection means;

[an] interference wave signal detection means for detecting [any] an interference wave signal [being] transmitted [by way of said] within the predetermined frequency band;

[an] interference wave signal transmission pattern estimation means for estimating [the] <u>a</u> temporal pattern of transmission of the interference wave signal [as] detected by [said] <u>the</u> interference wave signal detection means[; and

said], wherein the idle signal transmission means [being adapted to] computationally [determine the] determines a timing for the idle signal and the information signal transmitted from [some] the other radio communication device [in response to said] when the idle signal does not [overlapping the (time of)] overlap a transmission time of [said] the interference wave signal and [transmit said] transmits the idle signal at the computationally determined timing.

--3. (Amended) The radio communication device according

to claim 2, wherein [said] the interference wave signal detection means detects [any] the interference wave signal before [the] a start of an operation of the device.

- --4. (Amended) The radio communication device according to claim 2, wherein [said] the interference wave signal detection means detects [any] the interference wave signal at regular intervals during [the] an operation of the device.
- --5. (Amended) The radio communication device according to claim 2, wherein [said] the interference wave signal detection means detects [any] the interference wave signal [during] when the device is not operating [for communications].
- --6. (Amended) The radio communication device according to claim 2, wherein[,]

when [an] the interference wave signal is detected[, said] the idle signal transmission means [avoids] does not transmit the [transmission of said] idle signal and computationally determines the timing for the idle signal and the information signal to be transmitted from [some] the other radio communication device in response to the idle signal not overlapping the transmission period of [said] the interference wave signal [so as] to transmit [said] the idle signal at the determined timing.

--7. (Amended) A radio communication device [adapted to]

for radio [communications] communication using a predetermined
frequency band, [said] the device comprising:

[an] information signal detection means for detecting an information signal transmitted from [some] an other radio communication device;

[an] idle signal transmission means for transmitting an idle signal[, notifying] that notifies the other radio communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of non-detection of [an] the information signal transmitted from [some] the other radio communication device [as detected] by [said] the information signal detection means;

[an] interference wave signal detection means for detecting [the] <u>a</u> signal level [any] <u>of an</u> interference wave signal [being] transmitted [by way of said] <u>within the</u> predetermined frequency band[; and

said], wherein the idle signal transmission means [being adapted to transmit said] transmits the idle signal by [containing therein] including level information indicating the signal level of [said] the interference wave signal in the idle signal.

--8. (Amended) A radio communication device [adapted to] for radio [communications] communication using a predetermined frequency band, [said] the device comprising:

[an] information signal detection means for detecting an information signal transmitted from [some] an other radio

communication device;

[an] idle signal transmission means for transmitting an idle signal[, notifying] that notifies the other radio communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of non-detection of [an] the information signal transmitted from [some] the other radio communication device [as detected] by [said] the information signal detection means;

[an] interference wave signal detection means for detecting [any] an interference wave signal being transmitted [by way of said] within the predetermined frequency band;

[an] interference wave signal transmission pattern estimation means for estimating [the] <u>a</u> temporal pattern of transmission of the interference wave signal [as] detected by [said] <u>the</u> interference wave signal detection means[; and

said] wherein the idle signal transmission means [being adapted to transmit said] transmits the idle signal by [containing therein] including time length information indicating [the] a time length available for forwarding the [transmission of said] information signal from [some] the other radio communication means [as] transmitted in response to [said] the idle signal without overlapping [with] the interference wave signal[, if any,] based on [the basis of] the pattern estimated by [said] the interference wave signal transmission pattern estimation means in the idle signal.

--9. (Amended) A radio communication device [adapted to]

for radio [communications] communication using a predetermined
frequency [band] range, [said] the device comprising:

[an] idle signal reception means for receiving an idle signal transmitted from [some] an other radio communication device and indicating [the] an availability of [said] the predetermined frequency range;

[an] information signal transmission means for transmitting an information signal to [said some] the other radio communication [means having transmitted said idle signal] device according to [the] a timing of receiving [said] the idle signal[;

said], wherein the idle signal [containing] contains level information indicating [the] a signal level of [any] an interference wave signal [being] transmitted [by way of said] within the predetermined frequency range; and

[said] the information signal transmission means [being adapted to transmit said] transmits the information signal to [its] a base station[, indicating the] to indicate a detectable signal level [as] determined [on] pased upon the [basis of said] signal level of the interference wave signal.

--10. (Amended) A radio communication device [adapted to] for radio [communications] communication using a predetermined frequency [band] range, [said] the device comprising:

[an] idle signal reception means for receiving an idle signal transmitted from [some] an other radio communication device and indicating [the] an availability of [said] the

predetermined frequency range;

[an] information signal transmission means for transmitting an information signal to [said some] the other radio communication means [having transmitted said idle signal] according to [the] a timing of receiving [said] the idle signal[;

said], wherein the idle signal [containing] contains time length information indicating [the] a time length available for signal transmission without overlapping [with] the interference wave signal[, if any, being] transmitted [by way of said] within the predetermined frequency range; and

[said] the information signal transmission means [being adapted to transmit an] transmits the information signal [on] in the time length available for signal transmission directed to [its] a base station [as] determined [on the basis of said] based upon the time length information.

--11. (Amended) A radio communication system comprising a base station and [one ore more than] at least one terminal communication [devices] device for radio [communications] communication between [said] the base station and [said one or more than one] the terminal communication [devices,] device using a predetermined frequency band[;

said], the base station having:

[an] information signal detection means for detecting an information signal transmitted from [said] the terminal communication device [or any of said terminal communication

devices];

[an] idle signal transmission means for transmitting an idle signal[, notifying said one or more than one other] that notifies the terminal communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of non-detection of [an] the information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices as detected] by [said] the information signal detection means;

[an] interference wave signal detection means for detecting [any] an interference wave signal [being] transmitted [by way of said] within the predetermined frequency band[;

said], wherein the idle signal transmission means [being adapted to avoid transmission of said] does not transmit the idle signal [upon detection of an] when the interference wave signal is detected; and

[said] the terminal communication device [or each of said terminal communication devices being adapted to transmit an] transmits the information signal according to [the] a timing of receiving [said] the idle signal transmitted from [said] the base station.

--12. (Amended) A radio communication system comprising a base station and [one ore more than one] at least one terminal communication [devices] device for radio [communications] communication between [said] the base station and [said one or more than one] the terminal communication [devices,] device

using a predetermined frequency band[;

said], the base station having:

[an] information signal detection means for detecting an information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices];

[an] idle signal transmission means for transmitting an idle signal[,] notifying [said one or more than one other] the terminal communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of non-detection of [an] the information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices as detected] by [said] the information signal detection means;

[an] interference wave signal detection means for detecting [the] <u>a</u> level of [any] <u>an</u> interference wave signal [being] transmitted [by way of said] <u>within the</u> predetermined frequency band;

[an] interference wave signal transmission pattern estimation means for estimating [the] <u>a</u> temporal pattern of transmission of the interference wave signal [as] detected by [said] <u>the</u> interference wave signal detection means[;

said], wherein the idle signal transmission means [being adapted to] computationally [determine the] determines a timing for the idle signal and the information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices] in response to [said] the idle

signal not overlapping [the (] a time of [)] transmission of [said] the interference wave signal [on the basis of] based upon the pattern estimated by [said] the interference wave signal transmission pattern estimation means and [transmit said] transmits the idle signal at the computationally determined timing; and

[said] the terminal communication device [or each of said terminal communication devices being adapted to transmit an] transmits the information signal to [said] the base station according to [the] a timing of receiving [said] the idle signal transmitted from [said] the base station.

--13. (Amended) A radio communication system comprising a base station and [one ore more than one] at least one terminal communication [devices] device for radio [communications] communication between [said] the base station [and said one or more than one] the terminal communication [devices,] device using a predetermined frequency band[;

said], the base station having:

[an] information signal detection means for detecting an information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices];

[an] idle signal transmission means for transmitting an idle signal[, notifying said one or more than one other] that notifies the terminal communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of

non-detection of [an] <u>the</u> information signal transmitted from [said] <u>the</u> terminal communication device [or any of said terminal communication devices as detected] by [said] <u>the</u> information signal detection means;

[an] interference wave signal detection means for detecting [the] <u>a</u> level of [any] <u>an</u> interference wave signal [being] transmitted [by way of said] <u>within the predetermined frequency band[;</u>

said], wherein the idle signal transmission means [being adapted to transmit said] transmits the idle signal by [containing therein] including level information indicating [the] a signal level of [said] the detected interference wave signal within the idle signal; and

[said] the terminal communication device [or each of said terminal communication devices being adapted to transmit an] transmits the information signal [on the] at a detectable signal level to [said] the base station according to [the] a timing of receiving [said] the idle signal transmitted from [said] the base station and the level information contained in [said] the idle signal.

--14. (Amended) A radio communication system comprising a base station and [one ore more than one] <u>a</u> terminal communication [devices] <u>device</u> for radio [communications] <u>communication</u> between [said] <u>the</u> base station and [said one or more than one] <u>the</u> terminal communication [devices,] <u>device</u> using a predetermined frequency band[;

said] , the base station having:

[an] information signal detection means for detecting an information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices];

[an] idle signal transmission means for transmitting an idle signal[, notifying said one or more than one other] that notifies the terminal communication [devices] device of [the] an idle state of [said] the predetermined frequency band and of non-detection of [an] the information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices as detected] by [said] the information signal detection means;

[an] interference wave signal detection means for detecting [the] <u>a</u> level of [any] <u>an</u> interference wave signal [being] transmitted [by way of said] <u>within the</u> predetermined frequency band;

[an] interference wave signal transmission pattern estimation means for estimating [the] a temporal pattern of transmission of the interference wave signal [as] detected by [said] the interference wave signal detection means[;

said], wherein the idle signal transmission means [being adapted to transmit said] transmits the idle signal by [containing therein] including time length information indicating [the] a time length available for forwarding the [transmission of said] information signal from [said] the terminal communication device [or any of said terminal

communication devices as] transmitted in response to [said] the idle signal without overlapping [with] the interference wave signal[, if any, on the basis of] based upon the pattern estimated by [said] the interference wave signal transmission pattern estimation means; and

[said] the terminal communication device [or each of said terminal communication devices being adapted to transmit an] transmits the information signal [on] in the time length available for signal transmission to the base station according to [the] a timing of receiving [said] the idle signal transmitted from [said] the base station and the time length information contained in [said] the idle signal.

--15. (Amended) A radio communication method for radio [communications] communication between a base station and [one or more than one] at least one terminal communication [devices,] device using a predetermined frequency band[;

said base station], comprising the steps of: detecting [any] an interference wave signal [being] transmitted [by way of said] within the predetermined frequency band;

[said base station] transmitting an idle signal from the base station to [said one or more than one other] the terminal communication [devices, notifying the] device that notifies the device of an availability of [said] the predetermined frequency band[, avoiding said] and that avoids the detected interference wave signal[, if any; and

said], wherein the terminal communication device [or each

of said terminal communication devices transmitting] <u>transmits</u> an information signal according to [the] <u>a</u> timing of receiving [said] <u>the</u> idle signal transmitted from [said] <u>the</u> base station.

--16. (Amended) A radio communication method for radio [communications] communication between a base station and [one or more than one] at least one terminal communication [devices,] device using a predetermined frequency band[;

said base station], comprising the steps of: detecting

[any] an interference wave signal [being] transmitted [by way

of said] within the predetermined frequency band, the detection

performed by the base station;

[said base station] estimating [the] <u>a</u> temporal pattern of transmission of the detected interference wave signal[, if any, on the basis of said] <u>based upon the</u> interference wave signal;

[said base station] computationally determining [the] a timing for the idle signal and the information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices] in response to [said] the idle signal not overlapping [the (] a time of [)] transmission of [said] the interference wave signal [on the basis of] based upon the estimated pattern and transmitting [said] the idle signal at the computationally determined timing; and

[said terminal communication device or each of said terminal communication devices] transmitting [an] the

information signal <u>from the communication device</u> to [said] <u>the</u> base station according to [the] <u>a</u> timing of receiving [said] <u>the</u> idle signal transmitted from [said] <u>the</u> base station.

--17. (Amended) A radio communication method for radio [communications] communication between a base station and at least one [or more than one] terminal communication [devices,] device using a predetermined frequency band[;

said base station], comprising the steps of: detecting [the] a level of [any] an interference wave signal [being] transmitted [by way of said] within the predetermined frequency band;

[said base station] transmitting an idle signal[, containing therein] that contains level information indicating the signal level of the detected interference wave signal[, if any,] to [said one or more than one] the terminal communication [devices] device; and

[said terminal communication device or each of said terminal communication devices] transmitting an information signal [on the] at a detectable signal level to [said] the base station according to [the] a timing of receiving [said] the idle signal and the level information contained in [said] the idle signal.

--18. (Amended) A radio communication method for radio [communications] communication between a base station and at least one [or more than one] terminal communication [devices,]

device using a predetermined frequency band[;

said base station], comprising the steps of: detecting [any] an interference wave signal [being] transmitted [by way of said] within the predetermined frequency band;

[said base station] estimating [the] <u>a</u> temporal pattern of transmission of the interference wave signal[, if any, as] detected [by said interference wave signal detection means];

[said base station] transmitting an idle signal[,] containing [the] time length information indicating [the] an available time length of [said] the predetermined frequency band for forwarding [the transmission of] an information signal from [said] the terminal communication device [or any of said terminal communication devices] without overlapping [with] the interference wave signal[, if any, on the basis of] based upon the estimated pattern to [said] the terminal [component] communication device; and

[said terminal communication device or each of said terminal communication devices] transmitting [an] the information signal [on] in the time length available for signal transmission to the base station according to [the] a timing of receiving [said] the idle signal and the time length information contained in [said] the idle signal.

- --19. (Amended) A radio communication device [adapted to] for radio [communications] communication using a plurality of frequency channels, [said] the device comprising:
  - [an] information signal detection means for detecting an

information signal transmitted from [some] <u>an</u> other radio communication device;

[an] idle signal transmission means for transmitting an idle signal by using one of [said] the plurality of frequency channels [for notifying said some] to notify the other radio communication device of [the] an availability of [said] the frequency channel; and

[an] interference wave signal detection means for detecting [any] an interference wave signal [being] transmitted [by way of any of said] within one of the plurality of frequency channels[; and said], the idle signal transmission means [being adapted to transmit said] transmitting the idle signal[,] using a frequency channel [free from] not having the detected interference wave [signals, if any] signal.

- --20. (Amended) The radio communication device according to claim 19, wherein [said] the idle signal transmission means contains channel limiting information for limiting the frequency channels [that can be] used for transmitting [an] the idle signal out of [said] the plurality of frequency channels in [said] the idle signal.
- --21. (Amended) The radio communication device according to [claim19] claim 19, further comprising:
- [an] interference wave signal transmission pattern estimation means for estimating [the] <u>a</u> temporal pattern of transmission of [an] <u>the</u> interference wave signal on each of

the plurality of frequency channels[; and

said] wherein the idle signal transmission means switches the frequency channel for the transmission of [said] the idle signal on the estimated pattern [so as] to make [said] the idle signal and the information signal transmitted from [said some] the other radio communication device in response to [said] the idle signal not overlap the transmission of [said] the interference wave.

- --22. (Amended) The radio communication device according to claim 21, wherein [said] the idle signal transmission means contains switch time information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying the channel [to be] used [after the switch] in [said] the idle signal after the switching is performed.
- --23. (Amended) The radio communication device according to claim 21, further comprising:
- [an] information signal transmission means for transmitting an information signal to [some] the other radio communication device[; and

said], wherein the information signal transmission means contains switch information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying the channel [to be] used [after the switch] in [said] the idle signal after the

# switching is performed.

- --24. (Amended) A radio communication device [adapted to] for radio communications using a plurality of frequency channels, [said] the device comprising:
- [an] idle signal reception means for receiving an idle signal transmitted from [some] an other radio communication device [by] using one of [said] the plurality of frequency channels to notify [the] of an availability of [said] the frequency channel;
- [an] information signal transmission means for transmitting an information signal to [said some] one of the other radio communication device[, or] and the origin of [said] the idle signal[,] according to [the] a timing of receiving [said] the idle signal[; and
- said], wherein the information signal transmission means [being adapted to transmit said] transmits the information signal[,] using the frequency channel used for the transmission of [said] the idle signal [out of said plurality of frequency channels].
- --25. (Amended) The radio communication device according to claim 24, wherein
- [said] the idle signal contains channel limiting information for limiting the frequency channels [that can be] used for transmitting [an] the idle signal [out of said plurality of frequency channels]; and

[said] the idle signal reception means performs a search operation [only] on the frequency channels limited by [said] the channel limiting information.

--26. (Amended) The radio communication device according to claim 24, wherein

[said] the idle signal contains switch time information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying [the] a channel [to be] used after the [switch] switching is performed; and

[said] the idle signal reception means switches to the frequency channel specified by [said] the channel specifying information [when] at the time specified by [said] the switch time information [comes].

- --27. (Amended) The radio communication device according to claim 24, further comprising:
- [an] information signal reception means for receiving an information signal transmitted from [some] the other radio communication device[;

said], wherein the information signal contains information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying the channel [to be] used after the [switch] switching is performed; and

[said] the idle signal reception means switches to the

frequency channel specified by [said] the channel specifying information [when the] at a time specified by [said] the switch time information [comes].

--28. (Amended) A radio communication system comprising a base station and at least one [ore more than one] terminal communication [devices] device for radio [communications] communication between [said] the base station and [said one or more than one] the terminal communication [devices,] device using a plurality of frequency channels[;

said] , the base station having:

[an] information signal detection means for detecting an information signal transmitted from [said] the terminal communication device [or any of said terminal communication devices];

[an] idle signal transmission means for transmitting an idle signal to [said] the terminal communication device[,] using [any] one of [said] the plurality of frequency channels[,] to notify [said] the terminal communication device of [the] an availability of [said] the frequency channel;

[an] interference wave signal detection means for detecting [any] an interference wave signal [being] transmitted [by way of any of said] within one of the plurality of frequency channels[; and

said], wherein the idle signal transmission means [being adapted to transmit said] transmits the idle signal[,] using a frequency channel [free from] not having the detected

interference wave [signals, if any,] signal; and

[said] the terminal communication device [or devices] having:

[an] idle signal reception means for receiving [said] the idle signal;

[an] information signal transmission means for transmitting [an] the information signal to [said] one of the base station[, or the] and an origin of [said] the idle signal[,] according to [the] a timing of receiving [said] the idle signal[; and

said], wherein the information signal transmission means [being adapted to transmit said] transmits the information signal[,] using the frequency channel used for the transmission of [said] the idle signal [out of said plurality of frequency channels].

--29. (Amended) The radio communication system according to claim 28, wherein

[said] the idle signal transmission means [of said base station] contains channel limiting information for limiting the frequency channels [that can be] used for transmitting [an] the idle signal [out of said plurality of frequency channels] in [said] the idle signal[; and

said], wherein the idle signal reception means [of said terminal communication device] performs a search operation [only] on the frequency channels limited by [said] the channel limiting information to receive [said] the idle signal.

--30. (Amended) The radio communication system according to claim 28, wherein

[said] the base station further has [an] interference wave signal transmission pattern estimation means for estimating [the] a temporal pattern of transmission of [an] the interference wave signal on each of the plurality of frequency channels [on the basis of] based upon the detected interference wave signal and [said] the idle signal transmission means switches the frequency channel for the transmission of [said] the idle signal on the estimated pattern so [as to make said] that the idle signal and the information signal transmitted from [said some] an other radio communication device in response to [said] the idle signal do not overlap the transmission of [said] the interference wave and transmits [said] the idle signal; and

[said] the terminal communication [devices] device further has [an] idle signal reception means for receiving [said] the idle signal and [an] information signal transmission means for transmitting [an] the information signal to [said] the base station of [the] an origin of [said] the idle signal in response to [the] a timing of reception of [said] the idle signal[; and

said] <u>, the information transmission means [being adapted</u> to transmit said] <u>transmitting the information signal[,] using the frequency channel used for the transmission of [said] the idle signal [out of the plurality of frequency channels].</u>

--31. (Amended) The radio communication system according to claim 30, wherein

[said] the idle signal transmission means contains switch time information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying the channel [to be] used [after the switch] in [said] the idle signal after the switching is performed; and

[said] the idle signal reception means switches to the frequency channel specified by [said] the channel specifying information [when] at the time specified by [said] the switch time information [comes].

--32. (Amended) The radio communication system according to claim 30, wherein

[said] the base station further has [an] information signal transmission means for transmitting [an] the information signal to [said] the terminal communication [devices] device and [said] the information signal transmission means contains switch time information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying the channel to be used [after the switch] in [said] the information signal after the switching is performed; and

[said] the terminal communication [devices] device further [have an] has information signal reception means for receiving the information signal transmitted from [said] the base station

and switches to the frequency channel specified by [said] the channel specifying information [when the] at a time specified by [said] the switch time information [comes].

--33. (Amended) A radio communication method for radio [communications] communication between a base station and at least one [or more than one] terminal communication [devices,] device using a plurality of frequency channels, comprising the steps of;

[said base station] detecting [any] an interference wave signal [being] transmitted [by way of any of said] within one of the plurality of frequency channels;

[said base station] transmitting an idle signal[,] using a frequency channel [free from] not containing the detected interference wave [signals, if any,] signal to notify [said] the terminal communication device [or devices] of [the] an availability of [said] the frequency channel[; and

said], wherein the terminal communication device [or devices being adapted to transmit said] transmits an information signal[,] using the frequency channel used for the transmission of [said] the idle signal [out of said plurality of frequency channels].

--34. (Amended) The radio communication method according to claim 33, wherein

[said] idle signal transmission means [of said] in the base station contains channel limiting information for limiting

7217/63.

the frequency channels [that can be] used for transmitting [an]

the idle signal [out of said plurality of frequency channels]

in [said] the idle signal; and

[said] idle signal reception means of [said] the terminal communication device performs a search operation [only] on the frequency channels limited by [said] the channel limiting information to receive [said] the idle signal.

--35. The radio communication method according to claim 33, wherein

[said] the base station estimates [the] a temporal pattern of transmission of [an] the interference wave signal on each of the plurality of frequency channels [on the basis of] based upon the detected interference wave signal and switches the frequency channel for the transmission of [said] the idle signal on the estimated pattern so [as to make said] the idle signal and the information signal transmitted from [said some] an other radio communication device in response to [said] the idle signal do not overlap the transmission of [said] the interference wave, and transmits [said] the idle signal; and

[said] the terminal communication [devices] device transmits [said] the information signal to [said] the base station[,] using the frequency channel used for the transmission of [said] the idle signal [out of the plurality of frequency channels].

--36. (Amended) The radio communication method according

to claim 35, wherein

[said] the base station contains switch time information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying the channel [to be] used [after the switch] in [said] the idle signal after the switching is performed; and

[said] the terminal communication device switches to the frequency channel specified by [said] the channel specifying information [when the] at a time specified by [said] the switch time information [comes].

--37. (Amended) The radio communication method according to claim 35, wherein

[said] the base station contains switch time information for switching the frequency channel [to be] used for the transmission of [said] the idle signal and channel specifying information for specifying the channel [to be] used [after the switch] in [said] the information signal after the switching is performed; and

[said] the terminal communication [devices] device switches to the frequency channel specified by [said] the channel specifying information to receive [said] the idle signal [when the] at a time specified by [said] the switch time information [comes].--